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US Solar Flash

A French Twist: Will the US Pull Out?

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No More Climate Accord? Still Could Get Subsidies for Coal

President Trump will make an official announcement on the Paris Climate Accord at on Thursday at 3pm, according to the President's twitter. Media reports have suggested the President will withdraw the country from the voluntary non-binding pact, joining Syria and Nicaragua as the only three UN countries to opt out (vs 194 others signed on). While the accord is non-binding, the fulfilment of a campaign promise to pull out comes on the heels of the US international trade commission moving forward with a 201 filing to potentially raise solar panel prices domestically (which has already started to cause an uptick in panel ASPs of late) and would render solar less competitive. While the administration's recent actions suggest a continued focus on non-renewable generation, the question is whether the upcoming June 16 date could yet yield a further more explicit coal subsidy from the Department of Energy (DOE). We remain doubtful on both the scale and funding necessary to backstop coal on National security grounds. As noted in our recent visit to the AGA conference, coal plant shutdowns continue to be tied largely to high operating costs vs newer CCGTs or renewables, so we would expect the trend to continue regardless of the US status in the Paris agreement. Bottom line, we expect another wave of coal retirements to result from continued and ongoing cheap gas in Texas this Fall and follow in 2018 with announcements across PJM and the Midwest into the 2020's

given low PJM capacity prints of late.

What are the Practical Effects?

There are a number of companies actively lobbying to stay in the accord. Question remains just what strategy the administration will pursue to potentially unwind the existing Obama era regulations attempting to comply with the Supreme Court's earlier endangerment finding. The question is whether a more modest program is adopted focusing on efficiency rather than largely ignoring implementation altogether, leaving this potentially to be interpreted by a future administration. We continue to see risk to some developed renewables projects without robust protections in place for the PPA, though this is more specific to the 201 filing as panel input costs increase.

What is bipartisan? Likely nuclear support

We continue to bias our viewpoints towards a constructive outcome on both new nuclear via our Buy rating on SCG and for existing plants across the Northeast. We think investors fail to appreciate the potential for a combination of legislative and PSC support. We see further success across any range of states as boding well for EXC.

NEE's Analyst Day Prospects & its Record Storage Deal– from 11 to 4.5 c/kwh

We highlight in particular the recent news from Tucson Electric Power and NEER, which recently signed a 100MW solar + storage array at ~4.5 cents/kwh (solar only portion less than 3 cents). This is consistent and even ahead of recent commentary we've heard from EPRI suggesting solar+storage on the mainland US is below half the cost of the 11 cent/kWh solar+storage array being built on Hawaii. Given that the facility in Arizona would be online by 2019, we believe NEE has assumed some price deflation on both the solar and battery front, though to what extent any eventual 201 filing is included in projections remains unclear. We believe NEE is increasingly shifting its prospects towards solar into the 2020's both given the meaningful opportunity in FL but also to capture market share without wind PTCs. The critical question at the Analyst day later this month will be focused on just where its long-term growth in '21+ is derived rather than doubts/refocusing on near-year guidance in addition to prospects for the Oncor transaction still. Net-net, we're still bullish despite the latest rally.

## 3GW Renewable Auction to Launch in Spain

Following a relatively unsuccessful auction recently, Spain's Ministry of Industry announced it will hold an *additional* 3GW renewable energy auction 'before the summer,' noting that a large amount of wind and solar projects didn't qualify for the 3GW auction held two weeks ago. We highlight the previous auction cleared only 1.5MW of solar with wind being granted almost all the allocated capacity. We view this as generally supportive of the renewable space in Spain –

while we are still several years out the upcoming tariff reset for ABY in 2019 could yet be less of a concern going forward (though significantly low PPA prices in the auction could be read alternately by the govt as well in a more punitive outcome). With the risk of ABY's contracts being negotiated down in 2019 during its budget reconciliation process, we emphasize the continued support by the Ministry for renewables via the latest 3GW auction is a positive nonetheless. Recent commentary from the Ministry has noted that wind and solar is competitive at market prices and we see clear support for further renewable procurement on the back of the latest announcement for an *additional* auction. Further, we note the previous auction proposals were three times higher than the allocated capacity for the 2020 period which resulted in awards at €43/MWh, the lowest price ever for onshore wind in Europe.

## **Nevada RPS Moving to 80% by 2040**

The Nevada Assembly recently passed a bill to increase Renewable Portfolio Standards across the state to 80% by 2040 vs. the current goal of 25% by 2025. AB 206 will now move to Senate Commerce Labor and Energy Committee for consideration. We see the latest move to increase RPS as a positive for utility scale PV developers. We note the bill is supported by clean energy advocates, environmental groups and businesses such as MGM Resorts, who exited NV Energy's service in favor of renewable energy.

## **NEE Signs Sub 3 Cent PPA in AZ**

Tucson Electric Power recently signed a PPA for solar-plus-storage systems below \$0.03/KWh for 100MW solar array developed by NextEra. We note the pricing is significantly less than that of the latest combined storage facilities with recent PPA's in Hawaii being quoted at \$0.11/KWh. Further, we note a continued decline with last Fall's proposal from Clean Peak Standard pegged PPA's at ~\$0.145/kWh in 2015. We note the Tucson project is set to be online by 2019 and will be Tucson's largest dedicated renewable resource.

## **Solar modules in India to be taxed 5% - Not 18%**

Solar modules in India are now going to be taxed at a rate of 5% vs the prior 18% that was announced under the Goods and Services Tax (GST) several weeks ago. The discrepancy essentially boiled down a typo in the document which was released. Although the increase to 5% is not an unequivocal positive vs the 18% previously, we do not see a significant impact on the longer term trend. Nonetheless, we believe ~90 cent installed utility scale solar would yet be susceptible to even minor changes in the panel pricing, so there could be some effect before the price hike resets

## **Engie Adds Sungevity EU business to ops**

Engie is adding the European operations of Sungevity to its portfolio of distributed energy

offerings. The Netherlands based arm of the Sungevity was acquired for an undisclosed amount while the new US based part of the company's name was changed to Solar Spectrum. Engie will operate the EU arm in Belgium, the Netherlands, Germany and the UK. Engie has been building its DR business with the latest acquisition the company move into the resi sector. We note this is the first deal for both companies to address the solar market in Belgium, in which Engie currently has 2.8Mn of customers.

## Takeaway's from EPRI

We met recently with the longer term policy Electric Policy Research Institute (EPRI) and noted both AMI and Storage are well in focus.

### AMI Roll Out

As AMI rolls out across most utilities today, the larger communications network will be increasingly relevant and important. One of the key areas of focus would be standardized 'plug in' infrastructure; as technology changes, the plug in modules can be switched between distributed assets (for example, future hot water heaters could have a simple female plug interface) - this will be part of the shift towards a smarter distributed grid, yet who shares those costs isn't yet quite clear. Regardless, one of the other key areas of focus will also be the ability to communicate more effectively - ability to curtail will be key as penetration rates reach the mid single digits.

### Storage

On the storage front, lithium ion is clearly the focus for the next decade but we appear to be largely beyond the 'overhype' phase and into implementation. Case in point was the Tesla Powerwall, which from announcement to implementation (one year later) reduced cost by half, doubled power, and cut the size by 60%. Yet the clearest example of large scale storage deployment of late is the Aliso Canyon situation, which was resolved much faster than expected: 1) RFP was issued in June 2016, 2) awarded in Sept 2016 and 3) final commissioning Jan/Feb 2017. While this is due in part to policy goal implementation, this still suggests batteries are being used as peaker replacements years ahead of schedule. EPRI is forecasting that storage at \$1,400/kW can be competitive with natural gas turbines by 200.

#### **JULIEN DUMOULIN-SMITH, CFA**

Executive Director - Equity Research  
Electric Utilities, Alt Energy & IPPs Group  
UBS Securities, LLC  
1285 Avenue of the Americas  
New York, NY 10019  
212.713.9848  
[julien.dumoulin-smith@ubs.com](mailto:julien.dumoulin-smith@ubs.com)

#### **JERIMIAH BOOREAM, CFA**

Associate Director- Equity Research  
212.713.4105

[jerimiah.booream@ubs.com](mailto:jerimiah.booream@ubs.com)

**ANTOINE AURIMOND, CFA**

Equity Research

212.713.1414

[antoine.aurimond@ubs.com](mailto:antoine.aurimond@ubs.com)

**NICHOLAS CAMPANELLA**

Equity Research

212.713.2851

[nicholas.campanella@ubs.com](mailto:nicholas.campanella@ubs.com)

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